



II. Project Abstract

Briefly (500 words maximum) describe the proposed project clearly and concisely using the space provided.

This project addresses the academic needs of Gary Community School Corporation students enrolled in Algebra 1. All of the current indicators of student progress point to poor achievement in this entry-level course. These Indicators include student grades, performance on ISTEP+/GQE, district quarterly assessments, and the state's Algebra 1 End of Course Assessment (ECA). Because the algebra 1 ECA will now replace the GQE as the mathematics requirement for graduation, it is imperative that we address underlying reasons for the poor student achievement in this course.

An in depth analysis of performance data and teacher reflections on student classroom behavior suggests that poor achievement across the district can be attributed to a weak foundation in the pre-requisite basic skills and a lack of student engagement in the learning process. For this reason, a primary goal of this project is to increase student motivation and engagement and to develop mastery of key basic skills by supporting the consistent and appropriate use of innovative technologies in the algebra 1 classroom. The project will serve approximately 12 algebra instructors, 4 media specialists, and approximately 1,000 students in grades 8 – 12 in each of four newly configured career academies.

The **T.I.M.E. (Technology Integration in Mathematics Education) Grant: Focus on Algebra**, will support each of the following:

- The integration of calculator-based and computer-based activities into a standards-based algebra one curriculum
- Instruction that focuses on real-world applications and supports student exploration of career pathways
- Extensive and varied professional development for teachers in the use of innovative calculator- and computer-based technologies
- The incorporation of student-developed instructional activities to support classroom instruction

Innovative technologies such as document cameras, interactive tablets, and screen capturing software will be used on a consistent basis by teachers to support the learning of difficult algebraic concepts and skills. Professional development activities will be extended beyond the typical face-to-face workshops to include on-site support by building-level technology coaches and certified staff from our corporate partner, Texas Instruments, Inc. As a result of this increased level of support, teachers will begin to integrate these powerful and innovative technologies into their daily instruction.

One of the most exciting aspects of this project is the placement of innovative technology into the hands of the students. Students will use innovative technology to create and then share games, mathcasts, interactive activities, and tutorials. While using these new tools, they assume the role of teacher and increase their understanding by explaining their thinking to others. We are convinced that the integration of these teaching and learning technologies along with the incorporation of real-world applications represents a giant step toward reaching our primary goal – improved achievement in algebra 1. Once students are **engaged** in daily instruction, achievement will follow.